

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[PRICE 6D.]

LONDON AND BIRMINGHAM RAILWAY—WARWICK AND LAMINGTON BRANCH—CONTRACT FOR WORKS.—The directors of the London and Birmingham Railway Company will meet at the Station, at Birmingham, on Friday, the 2nd of March next, at Two o'clock, to receive tenders for the ERECTION OF THE LAMINGTON STATION.

Plans and specifications, and general conditions, will be ready for the inspection of parties intending to tender, at the office of the resident engineer, Station Station, London, on Monday, the 14th of March, where parties desiring to tender are requested to be in attendance by Two o'clock p.m. No tenders will be received, nor any alterations be permitted, after the hour specified above.

The parties tendering, or their authorized agents, must be in attendance. The directors do not bind themselves to accept the lowest tender.

Station Station, Feb. 28.

By order, R. CREED, Secretary.

CHESTER AND HOLYHEAD RAILWAY.
Capital £1,000,000, in 20,000 shares of £50 each.

DIRECTORS.
William M. Collett, Esq., M.P.
Adam Duff, Esq.
Sir John Guest, Bart., M.P.
William H. Thomas, Esq.
William Thompson, Esq., Alderman, M.P.
J. B. Buxton, Esq.
Edward Cropper, Esq.
George Carr Glyn, Esq.
Francis W. L. Gifford, Esq.
C. H. Jones, Esq.
Sir F. Leveson, Esq.
Captain Morrison, R.N.
W. J. Mackenzie, Esq.
John Laidlaw, Esq.
William Pender, Esq.

MANAGERS.
Messrs. Glyn, Mills, and Co., London.
Messrs. M. T. Turner, Esq., London.
Messrs. M. T. Turner, Esq., London.
Messrs. M. T. Turner, Esq., London.

SECRETARIES.
Messrs. M. T. Turner, Esq., London.
Messrs. M. T. Turner, Esq., London.

The directors beg to inform, that the required amount of capital has been subscribed, and that the bill has been presented to Parliament.

From the recent additional survey of the line, and a revision of the estimates by their eminent engineers, the directors have every assurance that the works may be completed considerably within the first estimated cost.

A proposition having been submitted for the estimate purchase by this company of the Chester and Birmingham Railway, the directors have readily assented to an arrangement for this purpose, securing, as it does, an important object as an independent terminus in the port of Liverpool for the Chester and Holyhead line, and a valuable district and branch.

Although Her Majesty's Government have deemed it inexpedient at present to issue any definite arrangement for the conveyance of the mails, or for any direct connection towards the maintenance of the railway, the directors feel confident that they will receive from Government every support in the furtherance of the project which is so national an undertaking is entitled to.

PARIS AND STRASBURG RAILWAY.
Total capital, 200,000,000 francs, to be divided into 100,000 shares of 2,000 francs each, and exceeding a moiety of the same, to be raised in England, in 200 shares.

LONDON COMMITTEE.
Messrs. Glyn, Mills, and Co., London.
Messrs. M. T. Turner, Esq., London.
Messrs. M. T. Turner, Esq., London.

GENERAL ADVANTAGES.—The limited investment of British capital in the construction of railways in France has hitherto been attended with both success and profit; the proposed, therefore, to establish a railway connection between the French capital and Strasbourg (the point of departure to and from Germany), will command public attention and confidence—more particularly, where it can be shown that the proposed line will be attended with both success and profit, and that the proposed line will be attended with both success and profit.

REVENUE OF THE COUNTRY TO BE TRAVELLED—PROBABLY EXTENT OF TRAFFIC.—It is not to be expected that the proposed line will be attended with both success and profit, and that the proposed line will be attended with both success and profit.

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HARWICH RAILWAY—MR. LOCKE'S LINE.
Eastern Counties Railway Office, Shoreditch Station, London, February 23, 1844.

GENTLEMEN.—I am directed by the directors of the Eastern Counties Railway Company to state, that, having observed the publication of the correspondence as to the Harwich Railway, between yourselves and the officers of the company, and in reply to your letter to the directors of the 11th December, the enclosed copy has been made for that letter, but without success. The search previous to the last general meeting, and the search previous to the last general meeting, and the search previous to the last general meeting.

HARWICH RAILWAY AND PIER—MR. LOCKE'S LINE.
Eastern Counties Railway Office, Shoreditch Station, London, December 15, 1843.

GENTLEMEN.—Your letter of the 11th inst., with the plans and sections of a proposed line of railway to Harwich accompanying the same, having been laid before the Harwich Extension Committee, I am directed to state, that the committee see no reason to alter the decision communicated to you in my letter of the 7th inst., and to which they beg to refer you.

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LINCOLN AND WAKEFIELD RAILWAY.
Subscribed capital £750,000, in 15,000 shares of £50 each.

PROVINCIAL COMMITTEE.
Messrs. Glyn, Mills, and Co., London.
Messrs. M. T. Turner, Esq., London.
Messrs. M. T. Turner, Esq., London.

This line, of 27 1/2 miles in length, is intended to connect the great productive agricultural district of Lincolnshire and the town of Lincoln, with the manufacturing population of Yorkshire and Lancashire, and with the series of large and important towns entering upon the line of the Manchester and Leeds Railway through the centre of the country.

After a survey of the country through which the line passes, the majority has reported to the committee that the works will be of easy construction and inexpensive, and that there can be no doubt that a similar increase in the commerce resulting from an improved and rapid communication may be justly anticipated.

These views being considered exclusively to the traffic generally belonging to the line of this line, it is unnecessary to enter into speculative considerations as to the probability of any extension of the railway system in that important portion of the kingdom.

LINCOLNSHIRE JUNCTION RAILWAY.
PROPOSED BRANCH RAILWAY FROM THE NORTH MIDLAND, AT SWINTON, TO DONCASTER, LINCOLNSHIRE, AND LINCOLN.

In direct communication with RUTHERHAM, WHITFIELD, MANCHESTER, and generally all places north, south, and west of Lincolnshire.

The great advantage to be derived from this line, some of which are hereafter enumerated, are so obvious, that the directors of the North Midland Railway have not only given their sanction to the undertaking, but have pledged themselves to support it in every manner in their power.

The objects of this undertaking are to form a short, cheap, and direct communication between the River Trent, the Port of Grimsby, with its fast growing trade, and the great agricultural country of Lincolnshire, with the many manufacturing towns, and the great commercial centre of London, and the many manufacturing towns, and the great commercial centre of London.

The Port of Grimsby is most favorably situated for the export and import of all kinds of goods by the River Trent (which is navigable for vessels of 1,000 tons), and from Grimsby, Germany, and the Baltic, bringing a constant supply of the most valuable commodities to the Port of Grimsby, and the many manufacturing towns, and the great commercial centre of London.

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IMPROVEMENTS IN THE MANUFACTURE OF METALS.

Specification of patent granted to Edward Joseph Francis Dumas de Bussac, of Lyons, France, for improvements in the manufacture of lead, tin, tungsten, copper, and zinc, and other products, and in the manufacture of their alloys with other metals.—From *Nature's London Journal* for March.]

The first part of this invention relates to the treatment of the above-mentioned ores, slugs, and other products, in blast-furnaces; and consists in constructing the apparatus in the manner described in the specification of a patent granted to the present inventor, November 11, 1841, so as to insure the complete condensation of all metallic fumes produced during the smelting process; taking care to force the gases through water, after leaving the last condensing chamber, in order that a perfect deposition of all metallic or other particles, which might otherwise have been carried away by the draft or blast, may take place. The second improvement comes into operation when the ores, &c., are not treated in blast-furnaces; and consists, chiefly, in submitting them to the reiterated action of muriatic, sulphuric, or other acid, after they have undergone such preparation as would render them soluble in acid, if they were not so by their mineralogical nature; they are then precipitated and separated by such reagents as the case may require. As regards the manufacture of lead from ores, &c., when they are in the states of oxides, carbonates, silicates, phosphates, or arsenates, they are reduced in the furnace usually employed in the manufacture of lead, having a series of condensing chambers applied to it; care being taken, during the process, to prevent any access of air, except such as may be supplied from the blast apparatus. The foregoing process and apparatus is equally applicable for condensing the fumes produced in refining silver, lead, and in the conversion of lead into litharge. When the ores, &c., are in the states of sulphates, sulphites, or sulphides, they may be either wholly or partially calcined, or treated directly with such a quantity of iron, or iron ore, as would be required to form a compound of iron and sulphur, with the assistance of carbonaceous matter, and thereby reduce the lead to its metallic state; the fumes which may be produced in the treatment being condensed in the manner before-mentioned. In manufacturing tin from its ores, by the application of either furnace (the condensing apparatus, before-mentioned, being used), all the fumes will be condensed, and a larger quantity of earthy flux can be used, so as to lessen the quantity of tin left in combination with the slag. When tin is to be obtained from slag, the latter should be treated in either of the furnaces previously alluded to, with such a quantity of flux as will be sufficient to displace the tin and other metals in combination with the slag. The alloy, obtained in this manner, is dissolved in muriatic or sulphuric acid, to obtain the various metals separately. When muriatic acid is used, the tin and iron will be dissolved, leaving nearly untouched, any tungsten which may exist in the product operated on; the tin can be precipitated, in a metallic state, by the use of zinc, or in the state of sulphuret of tin, by the use of sulphuret of hydrogen, or any other sulphuretted base; in the latter case, metallic tin can be obtained from the sulphuret by a proper calcination, and a subsequent reduction of the oxide thereby obtained; and when sulphuric acid, properly diluted, is used, the iron only will be dissolved, and a useful alloy may be obtained, by fusing together the tin and tungsten, with the assistance of a flux. The foregoing treatment is applicable for obtaining tungsten from tungstate of lime. The course pursued in the manufacture of tungsten from its ore, called wolfram, is to reduce the latter, by the use of an alkaline base, in a proper furnace or crucible, at a high temperature; the product being then dissolved in muriatic or sulphuric acid, the tungsten is left in a metallic state. An alloy may be obtained from the ore, by the use of an oxide of tin, copper, or iron, with a suitable flux; and from this alloy the tungsten can be separated by treating it with acid.

As regards copper ores, &c., they are converted into carbonates or oxides, by a preparatory calcination, and then exposed in a vessel to the action of sulphuric acid, in the gaseous state, or otherwise; the acid combines with the oxides, and the soluble sulphates, thus formed, will be dissolved and concentrated by the repeated levigation of the mass with water, until it becomes sufficiently concentrated to permit of the copper being precipitated from the sulphates, either by means of iron, or sulphuret of hydrogen, or other sulphuretted bases. The sulphates left after this treatment may be concentrated and crystallized, in the manner usually practiced. The patentee also describes, under this head of the invention, a method of producing sulphuric acid, by treating the sulphurates of iron, copper, zinc, or other metals, in a furnace similar to that described in the specification of his patent of May 31, 1838—with this modification, that a blast of air is employed, at a pressure above that of the atmosphere. As regards the manufacture of zinc, in addition to the process described in the above specification, the patentee claims the use of the condensing apparatus, before described, either applied to blast, air, or reverberatory furnaces.

The third part of this invention consists in the manufacture of the following alloys:—An alloy of tin and tungsten, composed of from sixty to ninety-five parts of the former, and from forty to forty-five parts of the latter. An alloy of tungsten and copper, in the above proportions. An alloy, formed by combining either of the usual alloys of tin and copper with the like proportion of tungsten. An alloy of zinc and tin, composed of from ninety-five to ninety-seven parts of the former, and from three to five parts of the latter. An alloy of zinc and copper is formed in the following manner:—A muffle, crucible, or pot, is half filled with a mixture of calcined zinc ore and carbonaceous matters, and upon these a tray, made of the same material as the pot, is placed, fitting exactly within the pot. This tray contains the copper required to form the alloy, and has a number of small openings in it, to allow of the vapours of the zinc combining with the copper, but, at the same time, prevent the contact of the zinc and flux therewith. The vessel being closed, the process is carried on in the same manner as zinc ore are usually reduced. The fumes of the zinc combine with the copper, in a regular and constant proportion, and the oxides of zinc, evaporating, may be condensed. When the process has been carried on for a sufficient length of time, the muffle is opened, and the divided alloy, found on the tray, is melted in a proper vessel, and the process repeated; to this alloy 3 per cent. of tin may be added. From the alloy thus obtained, another alloy may be produced, containing from four-tenths to five-tenths of its weight of zinc; by the addition, during the re-melting of the alloy, of as much metallic zinc as would be required to constitute an alloy of the above proportions; and by the addition to this alloy of from 3 to 5 per cent. of tin, a still further improvement is effected.

The patentee claims the improved process, above described, of condensing the fumes produced in treating lead ore, slag, or other products; the same in treating the ores; also in treating copper ores; also in treating zinc ores, without claiming any apparatus hitherto used in such manufactures—but claiming, in the manufacture of the above metals and alloys, the manner of using sulphuric acid. He also claims the treatment of the slags and other products, as above described, and the treatment for the production of tungsten; also the levigation of various alloys of metals, in the proportions above stated; and, lastly, the mode of alloying zinc from its ores, with copper, as described.

AGREEMENT IN COAL MINES.—Our valued correspondent, John Murray, Esq., F.R.S., F.L.S., F.R.S., &c., is in possession of the valuable information which he has so frequently advanced in our columns—the object of "legislative interference, the better to secure the protection of the miner, combined with safety and more efficient means for working coal mines; an achievement (he well observed) beyond all controversy, within the compass of modern science and capability to accomplish."—The printed version of the agreement, addressed by him to the South British Committee for Lessening the Causes of Accidents in Coal Mines, which are explained with interest in this important subject, and deserving the most careful perusal. The communications are printed in a neat pamphlet form, and published at a moderate price so as to secure extensive circulation. The author has forwarded to a copy, and we shall be happy to address them to any party who may require a copy.

REMARKS ON THE IMPROVEMENT OF COOPER'S ORE.—It is well known that, after copper mining in Cornwall is of comparatively recent origin, and that the means in this county were, at so very remote period, worked only for tin, the copper ore being considered as waste, and, consequently, thrown aside. A singular confirmation of this has just occurred in widening the road in the neighbourhood of Chacewater. Captain Davies, the contractor, in removing the old bridge, procured among the stones of which they were composed a considerable number that contained copper, and has recently selected from them several tons of copper ore. These stones had, as might be easily ascertained by analysis in search of tin, of a period when their value was not known, and used as materials for constructing the bridges in which they were found. Captain Davies, in excavating for the job, had been so fortunate as to secure the stones of the old bridge, and he, consequently, a considerable gain by the discovery.—*Edinburgh.*

RAILWAY REPORT.—At the suggestion of Mr. Gledhill, Mr. Wallace has proposed to submit, with all the report of the committee has been brought forward, which is expected to be in about three weeks to go.

ORIGINAL CORRESPONDENCE.

TICKETINGS—ACTUAL AND REPRESENTED AMOUNTS.

SIR,—The notice which you have taken in your valuable Journal of last week, under the head of "Ticketings, Actual and Represented," of the discrepancies in the sale of certain parcels of copper ore, is undoubtedly calculated, in some degree, to benefit the public; but your correspondent should have gone further, and have informed you, that the very glaring deficiencies upon several parcels, alluded to in his letter, did actually happen at the last sale of ore in — Mine, in this parish—and, for what purpose, it does not seem so difficult to divine, when we look to the fact, that a party here in direct connection with the management of the concern is also a seller of shares in the London market! and the mine has recently been raised, by contrivance, to the fictitious value of 30,000*l.*; notwithstanding (as is well known here) there must be an immediate call of 3000*l.* upon the adventurers, in order to continue the works of the mine—and such calls, without great improvements in their prospects, must be made again and again.

For the honour of the county, I have the pleasure of adding, that similar mistakes in the estimated quantities of copper ore for sale at the ticketings are of very rare occurrence—may, I may say, they can never be the effect of accident, but the design is obvious; and, if your correspondent had also (as I conclude, he might have done) called your attention to the actual state of the accounts of the undertaking, it would tend greatly to elucidate and explain the practices of the party referred to. AN OBSERVER.

Cambridge, Feb. 26.

The information supplied us by "An Observer" was also furnished by "J. J." in his communication of last week; but the opinion we entertained of many parties connected with the concern induced us then, as it does now, to withhold the name of the mine from publicity, in the hope that a satisfactory explanation can be given, and which we shall most readily insert in our columns. We have received several other letters, the publication of which, we feel assured, will not be required after the one of "An Observer," which well expresses sentiments apparently generally entertained. The proposed communications of "An Observer" will be most acceptable; and the more extended the information, the more general will be their interest.

THE INVENTOR OF THE SAFETY LAMP.

SIR,—An inscription in Dr. Murray's last letter renders it absolutely requisite for me to reply to him, and to show that my respected friend, Dr. Clanny, does not without reason charge Sir H. Davy with piloting two forms of his (Dr. Clanny's) original safety lamp. In a foot-note to page 367 of Dr. Paris's life of Davy we find the following:—After a description of the safety lamp of Dr. J. Murray, of Edinburgh, he proceeds, "One of the most active and intelligent members of the Society for Preventing Accidents in Coal Mines (Dr. Clanny) had for some time paid particular attention to the object in contemplation. He first suggested the idea of an insulated safety lamp, of which an account appeared in the *Philosophical Transactions* for 1815." In the same work, page 313, are descriptions of four lamps, in a letter from Sir H. Davy to Dr. Gray.—The Blowing Lamp, in which "the candle or lamp burns in a glass lantern, having a tube below of small diameter for admitting air, which is thrown in by a small pair of bellows, and a tube above of the same diameter, furnished with a cap filled with oil." Now, Sir, I ask your impartial and candid readers to determine, whether this was not a slight modification of Dr. Clanny's first plan of insulation? In the next paragraph to that just quoted, we have another lamp, called the Piston Lamp, described, which, likewise, can only be regarded as a modification of Dr. Clanny's original lamp. But in both these cases the slight alterations are calculated to destroy the safety of the original lamp; and that this was so, was proved by the heroic experiment of Dr. Clanny, and by the after use of the apparatus. The observation with regard to the only effect of Davy's slight alterations, will be found in the words of the editor of the *Annals of Philosophy* (1815), vol. vi., p. 454, where he renders an account of Sir H. Davy's paper on these lamps, read before the Royal Society, Nov. 9, 1815.

I only refer to the controversy with regard to another matter—viz., the discovery of the principle of safety in the use of wire-gases, or capillary tubes—in order to assert, that every statement made in support of Dr. Clanny's merits as an inventor is capable of being supported by documentary evidence. If Dr. Murray can now produce and authenticate a copy of his work, containing an account of the safety lamp which he claims, before Dr. J. Murray gave him to the world, I, for one, whatever value may be set on the acknowledgment, shall publicly admit that I have been in error. It is false, to say that I have made any insinuation—least of all, a "vile insinuation."—*Newcastle, Feb. 26.* R. M. GLOVER, M.D.

WORKING COAL MINES, &c.

SIR,—The subject of "safety lamps" must be cast into shadow, in the permanent question which ought to be brought prominently before the public, because the safety lamp is a deus in danger, and throws us off our guard, in reference to the great objects which ought to be kept steadily in view—viz., these "necessary things"—1st, an entirely new system of working coal mines; and, 2d, a vast improvement in the management of those now being worked. Everything else is subordinate. These, therefore, should be kept in bold and prominent relief, and other considerations merged as of secondary interest. The plans of working the coal in common use have been tried in the balance of industry, found "wanting," and miserably defective. In passing through Dudley, the other day, I asked (on Wednesday last) a coal viewer and pitman whether he knew Mr. James Ryan? He had not even heard the name before! He told me a coal pit accident had occurred some days before, with a loss of life amounting to thirty-five *l.*—forgot where the accident had happened! As far as my judgment extends, I cannot decide what ingredient predominated in this percentage—ignorance or self-conceit. What I want to see, Sir, is simply this—the light of science guiding the hand of practice. We do know that there are leading truths in geology, even amid the difficulties and perplexities of the sciences; and the practical miner fully avails himself of them.—Certainly not. There are certain fixed and immutable laws to which the phenomena of ventilation are subject and obedient; but the miner carries these laws, as the rule of his conduct, in the operations of the mine, into practice!—I timidly answer, no. Have the statistical laws which govern artificial fluids been tested and applied?—Ah! no. Ignorance of these things reigns in the antecedent, and obstructive, and criminal defiance of danger, self-conceit, and self-sufficiency, are poor apologies for this lack of knowledge! Instead of waiting for resources, and launching his lance, he devotes his business of a solid and benign government to better his home and his country to literature and science, and the arts—the leading bond of a happy society. How seldom have we heard, or the organs of science been raised?—For elsewhere they have been neglected, and "not at all," and suffered, in too many instances, to perish "unknown and unknown." Government ought to offer a premium for the best system of working coal mines, and improving the present methods, founded on practical and economical principles, and involving a comprehensive survey of scientific principles and physical laws—to be adjudicated by the common consent of a committee of engineers, &c., chosen, without exclusive distinctions, from every department of physical science; and let the concept of that premium be worthy of the nation and extensive diffusion of the energies of the mind—may, (I think), these would be a glorious reward for good, and a commendation deservingly to be wished!—I feel confident, in a little time.—*Feb. 26.* J. MURRAY.

NEW PATENT FUEL.

SIR,—We have been favoured, at our Library and Philosophical Society, with two excellent lectures on economic geology, by your old correspondent, Mr. T. Waples, which, as you will readily believe, merited the general approbation they met with—they were, indeed, excellent, abounding in valuable and varied information, and in the course of which the advantages that have accrued to society and individually by the application of geological science to agriculture, mining, and architecture, were dwelt upon; but there is one subject, in particular, which I would wish to draw your attention to, that of a new fuel, known as Waples's patent, which he is intended to his auditory.

The many advantages which I believe this fuel to possess form sufficient cause for my requesting your insertion of a few particulars respecting it and its application; one great advantage is, from its size, resembling a large brick, it can be built up, like a wall, on each side of the boiler of a steam engine, and protect it from injury by the pressure of steam. The process of its manufacture is briefly this—Fuel and coal are broken together in a mortar, and the composition, when soft, pressed in a mould; this powder is taken to a table on which small coal is lying, heated to a temperature of about 500°; about 10 per cent. of the powder is mixed with the coal, so as to form a mass, and when the materials are intimately combined the mould is shaken into the form of a brick, the specific gravity of which is the same as that of coal; the brick, now being covered from the mould, bears the stamp of "Waples's Patent," and is firm and compact, requiring a small blow to break it to pieces. This patent fuel is principally intended for the purposes of steam navigation; various descriptions have been devised and patented, for the use of steam-boats, some of these, however, have been from various sources, the principle of which have been lost and oppressive abuses, and the ability to form in the boiler of the vessel, and one together in a mass. This

fuel has neither of these drawbacks—is free from smell, and will sustain upwards of 500° of heat without even softening; it burns freely, leaves hardly any ashes, has 25 per cent. more heating power than coal, occupies, weight for weight, a third less space, is impervious to wet, and not, like coal, liable to deterioration; it is likely to get into extensive use—and large quantities of small coal, which would otherwise be wasted, will by this means be converted to profitable purposes. In districts where peat is more plentiful than coal, the proportions of coal and peat in the patent fuel may be reversed—for, when peat and coal are melted down, and afterwards ground to powder, the powder may be used as a flux with peat, and an excellent fuel moulded in the manner above described. The credit of the invention is due to M. Murciel, of Brussels, and the patent has been taken out by Mr. W. Wylam, of Newcastle—both of whom, I have no doubt, will meet with the patronage their ingenuity and spirit merits. I shall be glad if this elicits some observations on the subject from those of your correspondents who may feel interested in the question. ONE INTERESTED IN STEAM NAVIGATION.

Newcastle, Feb. 16.

IMPROVEMENTS IN THE MANUFACTURE OF IRON.

SIR,—I adopt your sensible suggestion, to drop personalities in matters that ought to possess other interest for your readers, or I might resort at some length to Mr. Rogers's amusing "note and beam" charge of my being a puffer! The statements in my last might be a "puff in the way of trade," but they are not the less true—and before Mr. Rogers throws doubts upon my statements as to "yields," he will, perhaps, give the authority of his name to those who have the excellence of our Lancashire red ore, and "puff" its merits more loudly and more extensively. "A Looker-On" confirms my account as to black-band producing red-hot iron. I trust the paper in which this letter appears may contain his promised analysis. There was an error of calculation in the figures of my last. I made 300 tons of red ore, at 17*s.*, 23*s.*, instead of 25*s.*; this difference of 30*l.* would add 1*s.* 4*d.* per ton to the cost of the puddled bars, which your readers will please note. If "A Looker-On" would be kind enough to give the cost of carriage from Newport or Cardiff to the works, and the quantity and cost of coal, wages, &c., one might form an exact estimate of the cost of best iron made by Mr. Clay's process, from a mixture of Welsh pig and our red ore. RED GAUNTLET.

Liverpool, Feb. 20.

DESTRUCTION OF LIFE IN MINES.

SIR,—Appalling as is the amount of the destruction of human life by accidents in coal mines, the public, I feel persuaded, only "know in part." A gentleman in Newcastle-on-Tyne informed me that he was in possession of cases of loss of life in coal mines, of which the public were entirely ignorant. When I first knew Whitehaven, there was then only one newspaper, whose columns, certainly, were never chargeable with the guilt of recording any of the accidents that might have occurred in the East of Loosdale's coal mines. Among the *on duty*—how far true I could not determine—it was said that the cost of fuel to the proprietor of the newspaper figured among the negatives. On one occasion, I remember, a funeral train of fourteen dead bodies having passed, it was remarked, that it became the only notice to the natives of Whitehaven that a fatal explosion had happened in one of the coal-pits! Feb. 24. J. MURRAY.

CORNISH MINES—NATURE OF THE STRATA.

SIR,—In reviewing the situation of the most productive tin and copper mines in this county, I find they are nearly the whole of them at the junction of granite and lilies. Wheal Vor Mines are at the foot of a granite hill, the great deposit of tin being found in the lilies; near the junction, I am informed, there are scarce any traces of the lilies to be seen in the hill, though they intersect it at right angles. In the Great Work Mines, about a mile north of the above, the lilies are productive in the granite only—a continuation of the same lilies in the lilies are quite unproductive. Godolphin Mines are in lilies at the foot of a granite hill; several small lilies have been discovered in the hill, but neither of them has been worth exploring. Stury Park, Camborne Veas, Dolcoath, Cuck's Kitchen, Throff, and Carn Breu Mines, are all on the same run of lilies, situated in the junction of granite and lilies. Trevelyan, Trevelyan, Wheal Hasset, and Wheal Bailey, are all at or near the junction; most invariably, if the lilies are productive in one stratum, they are unproductive beyond the junction to the other, unless the strata should run nearly parallel with the lilies, as in Dolcoath and adjoining mines. Consolidated and United Mines, Wheal Jewel, West Wheal Jewel, South Canavan, West Canavan, Wheal Robin, and Wheal Sisters Mines, and several others I could name, are at or near the junction of granite and lilies. There are a few exceptions to be found in the county where productive lilies have been discovered at a distance from granite hills in the lilies, but rarely beyond three miles, but I know of neither in the granite nor in the lilies from the lilies.—*Lancaster, Feb. 27.* A MINER.

ON RAISING "STUFF" FROM MINES.

SIR,—Having seen some observations in your valuable Journal of the 17th inst., respecting "raising stuff" from mines, I am induced to offer a few remarks: should you think them worthy a place in your columns, they are at your disposal. I perfectly agree with your worthy correspondent, A. T. J. Martin, that a new mode of raising stuff is evidently wanted where the drawing forms no considerable an item in mining expenditures; or at least some modification of the mode now in use. On the ideas suggested by him, I am not at present prepared to give an opinion, but will offer one which has struck me as probable to prove more advantageous than the present mode—that is, the drawing of cars or carts from the different levels to surface, instead of ladders, as a car might pass through a shaft with ease that would carry two ladders (or more); consequently, twice the quantity of stuff might be raised, by adopting the mode proposed; there might be a further saving effected, if all the workings above the levels were fitted with shafts from which the cars could be filled at once, then, by sending the same cars to surface, the labour of filling the ladders would be saved. By these means, it is probable that greater quantities of stuff might be got up at less expense, the mines kept more clear, and, consequently, better ventilated. That there are many objections to the mode proposed, the writer is aware, but should it be of the least possible benefit in the mining world, his ends will be answered. St. Agnes, Feb. 21.

RAILWAYS, AND PROPOSED MEASURES.

SIR,—I observe that you allude, in your last Number, to Mr. Wallace's motion for the destruction of individual property to railways. Now, I understand that Government ought to have taken the whole thing in hand; for, if any attempt were even now made, for such as Mr. Wallace calls a fair price, or proportion, it would, in all probability, produce a revolution in enterprise of this nature. Now, the first act of the committee at present sitting to revise the Standing Orders can never be justified. Their remission is to the effect, that railway Acts to be passed this session shall not only be subjected (as usual) to any Act which may be passed in this session, but also equally (as usual) to all future Acts. Now, it is, I submit, absurd to suppose for a moment that this is a fair or proper notice to those who have been hitherto the House. Let us take, for instance, the South Devon bill, in the progress of which, to obtain the best line through Devonshire, the parties have spent nearly 50,000*l.* in addition to other expenses incurred, and this in the expectation of obtaining an Act as good as those which have been secured hitherto—when, just as they have been too far committed themselves to proceed—then it is they, for the first time, find such an intended alteration in the law, as applied to railways, that the millions and a half of money which they are prepared to invest may be legally annihilated, should Parliament, in its wisdom (?), think fit so to do. I have not time to write more fully; but I cannot express the surprise I feel, that a measure as hard and unjust on those who have not the means of relieving their steps, has not been counteracted on by the press. I may again write you—in the meantime, subscribe myself, Yours, &c., W. W. WILSON.

London, Feb. 10.

THE DRY GRINDER.

SIR,—We may truly rejoice—How lately in the work of legislation, when the cause of humanity is implicated in the question! The mass of suffering and misery entailed on tens of thousands by the nature of their occupations is truly appalling, and is subject of "mourning, lamentation, and weeping." Our country, like headless Gull, "saw for none of these things," though the remedy is clearly within the hands of their parliament; they may often mend, and perhaps do, in matters they have no right to interfere with, while subjects of deep interest, involving the fate of thousands, are neglected as "his tale," or are dealt with cold and calculating indifference—when justice recommends itself at least alternate, if not entirely, to the cause of suffering and premature death. Truly it may be said of the "dry grinder," "he does not half live days"—it is only, indeed, a fraction of average existence! Here, indeed, is a truly legitimate question for the rulers of the land—and it is clearly within the province of Parliament to interfere; and it is a singular thing that they have the power to counteract the dry grinder from the operation of suffering, and the doom of an early grave—yet truly, human inequality is indeed at a low ebb, if it can find in the stress of legislative justice so ready for an evil of such intensity. I am not aware, however, that the question has ever been moved in Parliament; was previous to the subject like these are to be found in the Code Napoleon, and such that no slight safety and gratuity may. Truly the term "suffering" is misapplied, if it does not embrace a question like this. It does and appears that the grinder is injurious to the constitution, but dry grinding is the British patent of premature death of every subsequent form—and this action and remedy from the free parties of that that are attended in the process of mending, both, and cause grinding, but from the different parties that are detached from the mass, as clearly shown by the Arnold Report, a distinguished physician, formerly resident at Bradford. Although had proposed a kind of change of dress composed of manganite, but it actually failed, owing that it only applied to the particles of steel, and that, consequently, with these was no promise whatever

